

The Tech.

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THE TECH.

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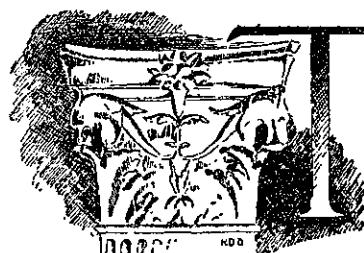
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THE birth of a new periodical at the Tech. forcibly draws attention to the Architectural Society,—one of the most energetic of the more serious organizations at the Institute. The new paper,—*The Technology Architectural Review*,—certainly seems favored with much that should go far toward carrying out its ambitious and far-reaching programme. In placing a new architectural periodical in the hands of the public, it is the aim of the Society to make of the *Review* a sheet whose intrinsic merits must soon carry it to the front ranks of artistic publications. Following the excellent example of *Croquis d' Architecture*, the official publication of the National School of Fine Arts, Paris, the *Review* will at first confine itself to publishing the first-mention designs made in the Department of Architecture, adding such text as seems

advisable in explanation of the plates. Later, it is hoped to bring in the best of professional competition drawings and plates of foreign sketches. If possible, opportunity for comparison will be afforded by occasionally publishing representative designs made at other colleges of architecture. The character of work and materials used will be kept at a high standard. That the paper will have influential friends high in the profession, is shown by the many encouraging letters already received by its editor.

The management and editorship has been placed in the hands of Henry D. Bates, '88, President of the Architectural Society. The following eminent men of the profession have consented to act in conjunction with Professors Theodore M. Clark and Eugene Letang, of the Institute, as an advisory board to approve matter selected for publication: Mr. Edward C. Cabot, Mr. Charles T. McKim, Mr. Robert S. Peabody, Mr. Arthur Rotch, Mr. C. Howard Walker, and Mr. Thomas O'Grady, Jr. To the last-named gentleman belongs the credit of having first suggested the publishing of an architectural paper which should reach the profession at large, and whose headquarters should be the Department of Architecture at the Massachusetts Institute of Technology. In this, its trial year, we think the *Review* may rightfully look for support to every student of the Institute, past and present.

FOR the third time a Tech. orchestra is being attempted. Having had some experience in the last one, two years ago, and knowing that nearly all the members of the projected orchestra have entered since then, a few words about the orchestra will not be out of place. The men who are in this year's orchestra

must realize that time for practice is short and precious, and they should make up their minds that if they are to accomplish anything at all, it will be only by doing their best at rehearsals — there must be no cutting nor fooling when present. That was what hurt the last orchestra more than anything else — no one agreeing with the leader, and all having different views. We are sorry to know that the music selected for this year is to be all of a heavy character. The "Largo" is all right in its place, but what the orchestra needs to do first is to "feel" each other, and to be able to play together. Light, popular dance music will accomplish this quicker than anything else, and it would be folly not to give it a prominent place in the Tech. orchestra's list. We wish to give the new orchestra every encouragement, and we hope that with a proper selection of music it will far exceed the orchestras of the past.

WE are very glad to see that '91 has so universally adopted the colors of '87. This makes the scheme of the rotation of class colors an assured success, and adds one more custom to those which have been started at the Institute through the agency of THE TECH. We were mistaken in saying in our last issue that no action had been taken in regard to this rotation plan. The officers of the classes had approved of it, but the matter had never been before the classes — hence our ignorance. There will be no need of any further action in this matter.

ALTHOUGH our eleven has done remarkably well this year, and exceeded our best hopes, there is yet one thing which we find to complain of. We do not wish to be understood as finding fault with anybody, for we do not, least of all with the management ; but we think

that the eleven would get much better practice by playing regularly against an organized second eleven, than against a team of fifteen or twenty men, as is the usual custom. Under such a disadvantage as this our team has done nobly, and the work which they have done shows what they might have done with better practice. Our time for practicing is so limited, that the players should get the best possible to make them do well. THE TECH hopes that the day is not far off when the large scores Yale and Harvard now make against us will be reduced to reasonable figures. We can, ourselves, remember the time when we used to score against Harvard ; and it is not so very long ago that Tech. played a close game with Yale, both sides scoring, with Yale not beating us more than six or eight points. The recent improvements in the game of foot-ball, which now make it such a scientific game, and one requiring so much skill as well as strength, render it impossible for us to hope, with the limited amount of practice possible for us, ever to be on the same level as Princeton, Yale, and Harvard in foot-ball, but at least we need not be so far below them.

AN attempt is about to be made to resuscitate the Banjo Club, or, rather, to start a new one, as the old one was so short-lived that its resuscitation is impossible. With the amount of enthusiasm which has been shown in musical matters this term, it seems that this attempt ought to be a very successful one. The advantages of such a club to the Institute we have spoken of before, and will not bring up again ; but we would advise the new club to have a more careful organization than the old one, so as to avoid its numerous errors. Only those men should be admitted who have proved themselves competent players to a committee chosen for that object, and a small admission-fee should be charged, so that the club can pay its expenses as it goes, and not run up a bill.

TO the mind of the average Tech. student, there is going on at the Institute all the time what appears to him to be a species of unfair discrimination. We do not think that we are mistaking the facts when we say that the Faculty, or rather individual members of it, regard with suspicion any man who is prominent in athletics, such as members of our foot-ball team; and to a less degree all men, who are more or less prominent here, fall under this ban. If a man plays foot-ball he generally finds that he is required to get higher marks than other men to get a pass and keep up with his class, and even then he does not feel at ease as to his professor's estimation of him. The reason generally assigned for this is, that he takes time away from his studies to devote to other things, and hence does not do as well as he is capable of doing; therefore he should not be rated as high as other men who get no better marks, but who are presumed to be doing their best, because they are not prominent in athletics, or whatever else it is that causes this discrimination. Granting it to be true that a man would spend more time on his studies if he were not on the foot-ball team, it seems to us unfair to mark him harder than the rest of the class. If he is able to do as well as some of the others, we think he ought to get the same mark; for, arguing by the same species of reasoning, he must be a smarter man than they to be able to do in less time as well as they have. Hence, there need be no fear of giving him too high a mark, because the mark which he should get on his paper is less than what he would have received if he had not played foot-ball. It therefore seems hard that he should be forced to conform to a higher standard.

As for our own views, we do not believe that a fellow takes the time from his studies for other things. Every one has a certain amount of spare time; and if some choose to spend it in athletics, or anything which brings them into prominence, they ought not to be discriminated against any more than those others about whose spare time nothing is known. If every one spent the amount of time on each study which

it is supposed he spends by the Faculty, no one would have any time at all, and the average amount of work would be fifty hours a week. This is enough to ruin the health of any man. As a matter of fact, practically, no one averages anything near this amount of study. If the Faculty thinks that all except those discriminated against average this amount of study, we think a little investigation would show that they were mistaken.

THERE is a great advantage to the standing of the Institute in having good athletic teams and a good reputation in athletics, which we do not think has ever been recognized. Although we are all unwilling to recognize that any other scientific school is as good or better in any way as ours, yet this is a fact which admits of a good deal of discussion, and is one which is by no means proved. To the great mass of uninformed outsiders, the Institute is but little higher than a high school, and we ourselves have seen many men, even in the neighborhood of Boston, who were greatly astonished on being told the aims of the Institute and the number of its students. How many people are there who know that the Institute has nearly eight hundred students, or double that of any other scientific school in the country, and that it ranks, in the point of the numbers of its students, sixth of all the educational institutions of the United States?

Such facts as these travel slow, and are not always well authenticated. But if our athletic teams are successful, the name of the M. I. T. will be heard much more frequently, and curiosity will induce many to learn more about us. Our athletic teams cannot fail to be good advertisements, and the better the team the better the advertisement. We do not think that the reputation of being strong in athletics will injure our scientific reputation at all, as many fear that it will.

One Afternoon.

"THUNDER, do you *chew*, too?" "Yep, I've ben chewin' for a couple o' months, an' I've smoked ever since I was a little kid." It was at Shohola, one afternoon in July,—Shohola on the Delaware, with its Glen, made famous as a day resort by the Erie R. R. Although it was Saturday, yet, for a wonder, it was not overrun with a "grand excursion," made up of toughs, lovers, and comfortable beery families from New York. A "Tech." man it was who addressed the above remark to a specimen of Pike County wildness, in the shape of a small boy of the mature age of eleven. The kid was dressed in a limited quantity of shirt, the left sleeve of which was slit from top to bottom, exposing a brown, skinny arm, a pair of much-used and cut-over canvas breeches, bare feet, felt hat, and a paper of some vile chewing-tobacco. His name was Jim. He was a good-natured boy, and helped pass a tedious wait by his remarks and the kind offer of an unknown brand of cigarettes, which were made, perhaps, of nothing worse than cabbage flavored with refuse stubs. One of the cigarettes was accepted and lighted; but when the kid's back was turned for a moment I shoved the weed under the platform on which I lay. Whereupon Jim had more respect for me, as a man who could so quickly smoke a cigarette. After awhile I reciprocated by giving him an "all Havana" cigar (two for a nickel), which I carried for that purpose. I also gave him a moral lecture, which he did not understand. But it established good feelings, and he began to give me pointers about the trainmen, and at last put me up to going down the road to Port Jervis on a freight, rather than wait for the mail train. Jim lived some five miles down the road at Parker's Glen, a blue stone quarry, and that day he had run away, "because dad was so darned bumptious." He had always lived at the quarry, hunting rattlesnakes for amusement, and doing as little work as he could. He often stole rides on the freights, and knew all the good-natured trainmen. He told me with some pride that he had been as far as Susquehanna

on a freight, and his opinion of me fell again when he found I had never been there.

When the freight came it stopped some distance up the track. Jim ran up to the caboose, while I, being lazy, waited until it came to me, and then made a flying mount. A big basket on the steps somewhat interfered with the grace and elegance of my performance, but I finally pulled myself on board. It was delightful sitting on the back platform; the engine was so far ahead that we could not hear it, and we wound around the sharp curves in almost complete solitude. On one side the rocks rose to a hundred feet or more, and seemed to be pushing us off into the river far below. We could touch the rocks with our hands. For miles the road was cut out of the face of these cliffs.

Jim didn't appreciate nature. He became uneasy as we approached Parker's Glen—and he had reason to; for when we got to the station, there was an irate descendant of a Pike County Copperhead, whip in hand, looking for "that Jim." The train rolled on, and Jim was left to his fate and his dad's switch. Poor Jim! Was his juvenile badness the cause or the result of his hard treatment? I was too much overcome by the quieting influence of the ride to think long of such a tough question. The train wound slowly along, with now and then a stop or a slow-up, and I still had the whole caboose to myself. Pretty soon, getting tired of the back steps, I went into the trainmen's half of the car. That was empty, too, for the crew were all forward somewhere on the cars. Such a pleasant place as that was! The doors in front and on either side were open, and a delicious breeze swept through. On one side were the cool, damp rocks gliding along within arms-length. On the other, you look down on to the Delaware, and away to the other side, where you could see the quiet canal following all the curves of the more beautiful, but less useful river, and with now and then two mules, dejected and morose, dragging a coal-barge or a "chunker." Beyond were the foot-hills of the Katerskills. I lay on one of the broad, leather-cushioned lockers, with

my jacket and some one's dinner-pail for a pillow, and gazed dreamily through the open door.

Still no one appeared to disturb my solitude, and the train wound slowly along. Looking at the hills, and thinking of the Katerskills just beyond sight, made me imagine I was going to them, and getting away, if possible, from my thoughts, for they had been for some time anything but happy. It was because of them that I was for the time a wanderer. Bitter thoughts once more contended hazily in my mind with better ones, until at last — after awhile I woke up enough to open my eyes and see what had made me wake. The caboose was transformed into a very noisy, practical sort of a place; for the trainmen had come in, and were talking and laughing while they got ready for Saturday night and a day's rest. The conductor was sorting way-bills in one corner at his desk. Two old fellows were swapping war stories, and even tougher fish stories, and the brakemen were trying to wash off some of the "Erie dirt," so their best girls could recognize them when they reached Port Jervis. One young fellow was unusually anxious, for he was to be married that week, I learned, and expected his girl to meet him at the station. After his turn at the water-bucket he fished out a package from a locker, and disclosed a "biled" shirt and a necktie. A collar and cuffs did not seem to enter into his ideas. But he was happy, and Saturday night meant something to him. Pretty soon the conductor saw I was awake, and to satisfy his doubts about my being a tramp, asked for my fare. A few minutes after we pulled into the train-yard at Port Jervis, and everybody hurried off, leaving me to gather myself together and follow more slowly. That evening, later, I was at M——, twenty-five miles nearer, and in sight of, the Katerskills, with my afternoon ride only as a memory.

Woods Holl.

ONE bright morning in early October the four '88 Biologicals, convoyed by their instructor, set sail for Woods Holl. They got un-

der way at just nine o'clock, and were soon dancing along with an ever-freshening breeze. This embarkation, by the way, was in an Old Colony passenger-car; but since the recent yacht-races, American journalism is nothing if not nautical. Our object was to visit the United States Fish Commission buildings and Aquaria at Woods Holl.

Reaching our destination after some two hours' ride, we straightened ourselves out, and looked upon the prospect before us. The air was deliciously mild and balmy, and we felt that an "east wind" belonged to the traditions of another clime. Without rhapsodizing over the scenery, it may be said, very truly, that the picture we saw before us was beautiful. Soft blue water, green islands, fleecy, drifting clouds were everywhere; and as if to give a touch of life to the whole, there was the *Puritan* riding at anchor near Naushon Island, — the summer home of her owner. We felt that naturalists could not possibly be better located for summer work; and the thought came to us, very pleasantly, that just here it was hoped to establish a marine biological laboratory in the near future. The project, when carried out, will result in great benefits to American biology.

The buildings of the Fish Commission are but a few minutes from the railway station. Professor Lee met us as we reached them; and in all our sight-seeing we were greatly indebted to him for his kindness and painstaking courtesy.

After a hasty survey of the collections and aquaria, we felt called upon to honor the claims of the physiology of nutrition, and accordingly withdrew. In our ears the voice of the waitress still rings, as she calls in stentorian tones, "Another piece of pie for Mr. —!"

Returning for a more extended examination of the varied forms of life, we found much to excite our wonder and interest. In almost every tank were pugnacious hermit-crabs, each manfully tugging at the claw of his neighbor with a heroism worthy of a better cause. Here and there were glassy-looking squids, shooting back and forth as if jerked by a spring, and frequently bringing up against the side with

an energy that must have surprised them. They are not alone, however, in this process, which, if not the direct result of obtuseness, will at least eventually end in it. Most of the fishes imitate the squids in this respect, and persistently run their noses against the glass, so that their frayed effect suggests a sudden growth of mustache.

We commend to all Freshmen ambitious of acquiring the art of self-expansion, the example of the swell-fish. If this aspiring animal be lifted from the water and gently stroked, it will, when put back, immediately swallow an amount of salt-water which increases its bulk to a most alarming extent. We were told that a fish which measured $4\frac{1}{2}$ inches in circumference before this engorgement, raised himself to the very respectable girth of $11\frac{1}{2}$ inches! The office of Alderman is evidently hereditary in the family.

Delicate hydroids, fierce lobsters, shy, parti-colored anemones, and, above all, countless numbers of small fish, representing many noble families, luxuriated in the aquaria around us. These and the gay, flaunting algæ, streaming up toward the surface, gave us a vivid idea of the richness and beauty of marine life. Fascinated by the sight, we could have gazed for hours at the brilliant and ever-shifting scenes. But there were several new worlds waiting to be conquered, and we must leave the present half subdued, in order to attack the future.

The steamer *Albatross* was our next objective point; but events proved that the assailants themselves were the ones to be taken by storm. In very fact, the appointments of the *Albatross* are well calculated to rouse the naturalist to the height of enthusiasm. Built in 1882, and designed especially for scientific work, there is little to be desired in the way of improvement. She is somewhat over two hundred feet long, has an iron frame and hull, and possesses roomy and pleasant accommodations for officers, scientific staff, and crew. The special scientific quarters are splendidly adapted for work. The three rooms devoted to this purpose occupy a central position, being thereby assured of relative steadiness. The two upper rooms are laboratories, the lowest being given up to the

storage of specimens, jars, and alcohol. The whole vessel is well fitted with the electric-light system, but the laboratories fairly revel in their large number of lamps. The effect at night is said to be very brilliant, and the brightest sunshine could hardly be more favorable for investigation.

We were shown a nest of small incandescent lamps which is lowered into the sea at night, attracting to itself enormous swarms of living creatures. With the aid of a dip-net, a large number of new and rare forms have been captured by this novel method. The many appliances for collection and research with which the *Albatross* is supplied are too numerous to be detailed here. Nothing has been left undone to insure success in all her undertakings. Dredges, trawls, sounding-machines, seines, rifles, and scores of other contrivances for studying marine life, help to make up the outfit.

A glimpse into the snug and pleasant quarters of the officers was enough to bring to the surface some wild plans that had been slowly rising in our minds for some minutes past. The *Albatross* starts in November on a trip around the Horn into the Pacific, dredging, collecting, and sounding all the way, and a thorough study of the fauna of our western coast will be made,—the whole trip taking about a year. Is it to be wondered that there was an instant and ready response to the suggestion of one of our number that we should take passage, even if we had to do it as stowaways? For a time we seriously thought of petitioning the Faculty to allow us to complete our course by the trip on the *Albatross*. We could return in time to receive our degrees, and all would be well. Owing to the defection of one of the party, we were forced to give up all hopes of this nature. Slowly and sadly we stepped ashore. The erring member, however, whose disrelish for the salt-water is equaled only by the water's mortal antipathy toward him, drew a long breath, and began in a measure to feel happy again. It must be confessed that he did not regain full control of himself until a certain "blue-letter" day came around.

There is a large granite basin filled with sea-water a short distance from the wharf at which the Albatross was lying. The tide rises and falls some few inches in it, but at the lowest it contains five or six feet of water. A large number of fishes of all sizes are kept here. At the time of our trip, the basin held, among other interesting occupants, two large sharks, a big sea-turtle, a few lazy skates, some small blue-fish and butter-fish, and a huge, fat lophius. The lophius has in him the making of a masterly politician. From his upper lip hangs out a long, fibrous rod, with an inviting filament at the end. The smaller fry, spying this tempting morsel from afar, approach to examine it, when suddenly a cavernous mouth opens, there is a rush of waters, and the eager little fish have vanished; the lophius is calmly lying on the bottom, with the same dainty bait dangling above him. Plainly, the tragedy is to be repeated, but with a total change of actors in the subordinate positions. For our edification the lophius was kind enough to swallow a few small pebbles placed judiciously along his mouth as he lay near the side of the basin. We trust they may have stirred into life his somewhat dormant conscience.

The butter-fish were slowly swimming round and round the basin in a ceaseless treadmill fashion, seeming naught disturbed by the inquisitive glances cast upon them. Their interest was speedily aroused when one of our party dipped his finger in the water, some of the younger and more venturesome fishes even snapping at it in their eagerness for fresh meat.

The sharks in this basin, strange to say, are on very friendly terms with the other fishes. They are so amicably inclined, in fact, that they can be brought to touch no live food. The neighboring fish-market has to be drawn upon to satisfy the fastidious appetite of their majesties. After the tales one has read of the glass bottles, old boots, and iron spikes which seem to constitute part of the fare of some of these hungry toilers of the sea, one is quick to believe that these particular sharks are on the high-road toward becoming domesticated animals in good and regular standing.

All too soon came the time to leave our finny friends, and with a parting look through the aquaria we started for the railway station. The expedition, on the whole, was not so wildly exciting as some other biological expeditions have been. No one of the party ran away with another man's overcoat, or was run away with by another man's mustang. The day passed without any such exciting episode. Yet this particular excursion will long stand out in our memories as one filled to the very brim with keen enjoyment.

As we stepped from the train in Boston, each one said in his heart, with Lessing, "*Ich will wieder ein anderes Mal vorkommen.*"

A Letter.

BOKFONTEIN FARM, SOUTH AFRICA,
May 12, 18—.

MY DEAR FRANK:—

I AM writing to you as soon as possible to tell you why I did not arrive by the last steamer, as I expected. I had made all my arrangements to leave on that date, and my practice was to be attended to by a young doctor from the Cape; but as means of communication between here and Cape Town are very limited, he was to arrive by the steamer in which I was to sail. So I was obliged to be at the beck and call of my patients up to the very last. The steamer Singapore, in which I was to sail, was to touch here early Thursday morning. On Wednesday, about the middle of the day, a messenger came riding up to my door, and asked me to go several miles inland to set a man's leg, which had been badly fractured by some falling timber. I immediately made all speed, for I wished to get back before nightfall; and before long I was on the road, with the messenger as my guide. He was a fine specimen of a Boer, young and well made, but one would have known him to be a Dutchman anywhere. Our road lay first through the outlying farms of the settlement, and then plunged into a thick jungle, perfectly typical of

South Africa, the haunt of many beasts of prey, not to mention the snakes. When we emerged from this we came out on to a high, rolling country, and after a few miles more we came to one of those large farmhouses such as nearly all the Boers live in. The patient was attended to with much difficulty, and after much delay. I leave out medical details, as I know that you dislike them, and by this time it was almost evening. The good people of the house would not hear of my going back that evening; at least, I would wait till after supper. But I was determined not to miss my steamer, and wished to get through the jungle before it was dark, as its reputation after dark was not very good. So, resisting all offers, I set out. My former guide was to accompany me as far as a farm on the hill side of the jungle, and from there I was to proceed alone. The way I knew well enough—I had been over it a hundred times—if the light would only hold out. As we neared the farm where my young friend was to leave me the sun was fast setting, and I saw that I would have scant light for my dreary ride. We arrived at the farm in the gray of the twilight, and stopped to exchange a few words with the proprietor, who begged me to stay all night, and warned me against the dangers of the jungle; still I persisted on proceeding. I was armed with a hunting-knife and a revolver, and the good man insisted upon my strapping his gun across my saddle. On plunging into the jungle, what had been gray twilight outside, became pitch darkness. I had not proceeded far when I heard a swirling noise, accompanied by a hissing, and something cold struck me. My horse started, frightened; I was caught up in the air, while the coils of a large boa-constrictor wound themselves around my body. A sense of indefinite horror, which was immediately followed by intense agony! The serpent had begun his deadly work, and was drawing the coils tighter. In a minute or so more I had collected my senses enough to think what I could do to save myself. I felt for my revolver, my knife, with my one arm which was free (it was my right arm). Alas! I could not get at them. The agony became

more intense; shriek after shriek of pain escaped me. I seemed to see two eyes of flame in front of me. I grasped at where I thought the neck of the reptile must be. I gripped his throat, I would choke him. And thus was I locked in a death-struggle in intense agony, would the boa never give up. I felt my strength failing, and then all consciousness left me.

A pleasing sense as of a genial warmth came over me. I looked around me. I was lying on a long settee, which ran like a shelf almost all around the room, which was large and square, with a high, pointed roof, from the rafters of which depended strings of dried onions, salt pork, and other such things; on one side was a large hearth of blue and white tiles, while on shelves along the walls were plates of Delf ware and brightly shining kitchen utensils. The whole effect was eminently Dutch,—but not the Dutch of Holland, but of South Africa. I was in the living-room of the farmhouse on the edge of the jungle. My cries had been heard, and the good man and his son, with the young fellow who had come with me, came to my assistance. I had killed the snake, but it was found almost impossible to loosen his coils from my body, so that they ended by cutting him off in pieces, and then they carried me to the house. The doctor, he who came to take my place, came to see me as his first patient. He says that there are two ribs broken, and my left arm is broken in two places, beside which he is afraid of internal injuries. I have the best of care, for with him came up Sister Agnes, who is always at the beck and call of every sufferer. How right she has proved in regard to her vocation, surely such a life of sacrifice as hers has been is something worth contemplating. She, who both of us wished to make our wife, has pursued her gentle course in her higher vocation, so that for miles around she is known as the helper and comforter of all pain and distress. Under such care how can I say that I suffer? Gladly would I keep her to nurse me, but she steadfastly refuses; her vocation is to the poor, so we rich people must have rougher hands and less kindly

hearts to minister to their needs. And now I must ask you to look up a competent man nurse for me, and send him out as soon as possible. When I am able to stand the voyage I will come to England ; and until then I am, with much love to all at home,

Your affectionate brother,
GEORGE.

FRANCIS BOROUGHSLIGH, Esq.,
Boroughsleigh Manor,
Leighsborough,
—shire,
England.

Noticeable Articles.

I suppose the article to which most readers of THE TECH will first turn in *Scribner's* for November, is that on the Physical Characteristics of the Athlete, by Dr. Sargent, the accomplished Superintendent of the Harvard Gymnasium. It is the second of a series on Physical Training, and is profusely illustrated with diagrams and instantaneous photographs of athletes in motion. It is good to see the careful attention that is paid in colleges like Harvard and Amherst to physical training. Gymnastics were first introduced at Harvard, about half a century ago, by the two well-known German scholars, Dr. Charles Follen and Dr. Charles Beck. They were fugitives from the iron despotisms that were established in Germany after the downfall of Napoleon, and had belonged to the patriotic young Turners, organized by Jahn. One of them, Dr. Follen, after taking a noble part in the anti-slavery movement in this country, perished in the burning of the Sound steamer Lexington, in 1840. Dr. Beck was for many years the learned professor of Latin at Cambridge. When I entered college some remnants of their open-air gymnasium were to be seen on the Delta, where now stands the stately Memorial Hall. But gymnastics died out at Cambridge, and did not revive till some unknown benefactor gave the money for the first gymnasium building, and a respectable colored pugilist was appointed superintendent. They did not gain a permanent footing and a true organization till the present superb gymnasium was built, and the pugilist was superseded by a well-educated physician. It may perhaps be doubted whether, until this system is adopted, a gymnasium is not the

source of as much harm as good ; for it is not physical training merely to turn a lot of boys into a shed full of bars, and ropes, and dumb-bells. Let us hope that the time will soon come when no college will be considered properly equipped without a trained medical superintendent of its students.

An ancient and venerable illustration of another of the popular sports of the day, may be found in the illustrated paper on the wonderful old Viking ship lately dug out of the funeral-mound of a Scandinavian chieftain at Gokstad, in Southern Norway, and now, with its curious contents, in the possession of the University of Christiania. It is 78 feet long, and it is conjectured to have been built in the later iron age, or between A. D. 700 and 1000. It was but a grim kind of yachting that was probably done in her, for it was in such keels that Angles and Saxons made their raids on Britain, and the piratical followers of Rollo sailed up the Seine. It was in such a vessel, too, that Leif Ericson, whose statue we have just been setting up, first reached America. Rarely has there been such an antiquarian find as the contents of this old Scandinavian chief's funeral-mound, who was not a Vi-king, or any other kind of king, as many people suppose, but a Vik-ing, wicing, or man of the creek or fiord.

Readers of THE TECH will certainly not overlook the excellent article by our President, entitled, "What Shall We Tell the Working-classes?" If the working-classes could only be made to listen to such sound doctrine, our labor troubles would be over.

The *Contemporary* for October contains a specimen of what may be called first-hand knowledge in the shape of a paper on Afghan Life and Afghan Songs, by Professor Darmesteter. I call it first-hand, because the learned Professor lived for months among the Afghans, and collected their songs as young Walter Scott collected his Border Minstrelsy, — from the mouths of the people themselves.

In the same number is a paper "by an English resident in Russia," giving an account of that extraordinary man, Michael Katkoff, who died recently in Moscow. Though only a newspaper editor, Katkoff seems to have been, for the time, more the real ruler of Russia than the Czar himself, and, if we may believe this writer, Russia never had a greater curse. For he was a renegade reactionary, a traitor to all liberal principles, and threw the whole of his enormous influence over the

Russian people in the direction of stifling all the germs of progress that were beginning to spring up in that wretchedly misgoverned country. "The first part of his life was spent in the cause of political, social, and religious liberty, in not unsuccessful efforts to better the lot of millions of his suffering countrymen. The second part, during which he had immeasurable opportunities for promoting the welfare of his fellow-men, and immense power for evil and for good, was one systematic attempt to undo the work he had accomplished in the first,—to obliterate all traces of the labors of his youth; and, what is more, it was likewise successful. . . . For, thanks to him, Russia is now politically, intellectually, socially, in pretty much the same condition that it was forty years ago, when he was lecturing to the students of the Moscow University on the history of human thought."

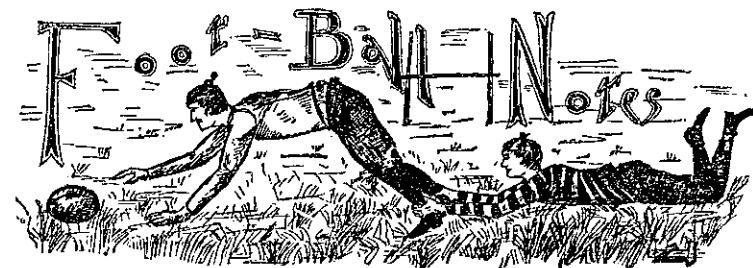
He was a renegade and a rascal, and his career may be compared to the similar "success" of the editor of some low-class political newspaper, say in New York, in making a fortune and debauching the politics of America.

The same number contains a paper entitled "Language and Literature," by the well-known history professor at Oxford, Professor Freeman. It is not a learned philological discussion, but is occasioned by a lively controversy that has been going on there over the appointment of a certain professor to a chair of English literature; for Oxford, strange to relate, now has a chair of English literature. The doughty professor of history, who dearly loves a scrimmage, must needs take his part, but let us thank him for some sentences with which he concludes. Third-year men may think they have heard something like it before, and it is encouraging to find one's self supported by such learned authority. "All things cannot be taught," says Professor Freeman; "facts may be taught, but surely the delicacies and elegances of literature cannot be driven into any man; he must learn to appreciate them for himself. If the poet cannot be made, surely the student and critic of the poet can hardly be made either. Yet once make his work a matter of examination, and those are sure to arise who will undertake to make him." . . . "And in subjects of this kind, which seem so incapable of being taught at all, the teaching is more likely than in other subjects to be of the kind which one would least wish to encourage. Because 'literature' such as we are asked

to take into our university course, is of all subjects that which should be kept most free from the touch of the crammer, it is sure to be the very one which will fall most hopelessly into his hands. . . . Only let the crammer touch it and what will it be like? . . . The crammer cannot teach taste; he cannot hammer into a man so much as an ear for meter and rhythm; still less can he hammer into him the thousand minute gifts, the endless delicate powers of appreciation, which go to make the literary student in any sense worthy of his name. . . . The crammer can but teach facts; the crammer in literature will have to fall back on the facts of literature, and those facts are in practice seen to be very largely nothing better than the gossip, the chatter about literature which is largely taking the place of literature."

We say amen to all that. But if literature cannot be taught, *how to study* literature can.

W. P. A.



Tech. vs. Trinity.

TECH. defeated Trinity at foot-ball to the extent of 74-0, November 5th, on the Union Grounds. Mr. Phinney refereed impartially, though Trinity kicked against many of his decisions. The teams were,—Tech: rushers, Vorce, Tracy, Roberts, Mitchell, Ladd, Hamilton, Macaulay; quarter, Herrick (capt.); half-backs, Germer and Duane; full-back, Devens. Trinity: rushers, Griswold, Fitzgerald, McCook, Shannon, Hosington, Upson, Scott; quarter-back, Lynch; halves, Brinley and Barber (capt.); back, Brady. The kick-off, at 3.08, was Tech.'s; and good use they made of it, for not two minutes had passed before they scored the first touch-down. This was done so neatly and quickly that the Trinity men lost their wits, and before they recovered them, Tech. had scored four touch-downs all in a heap. But one

goal was kicked from these. The rest of the game Tech. had to work harder for points, but the score rose rapidly, despite Trinity's brace. The first half ended shortly after Trinity had made a safety, the score then being 38-0. The prettiest play of the game was made in the second half, when Mitchell secured the ball on Trinity's fumble in the middle of the field, and ran with it. Just as he was overhauled, Herrick grabbed the ball out of his hands and scored the touch-down. Tech. piled up 36 points more this inning, and the ball was all the time in Trinity's territory. Barber and Brinley did nearly all the work for Trinity, and were quite well protected by their rush-line. All the Tech. men outdid themselves, especially Duane and Herrick, the former's bull rushes gaining several yards nearly every time.

The final score: Tech., 16 touch-downs, 4 goals; Trinity, 1 safety,— 74-0.

'90 vs. '91.

THE Sophomores and Freshmen indulged in an annual game of foot-ball, November 10th, on the Union Grounds, and the contest was close and exciting. The players were,— '90: Delano, Waite, Glidden, Hamilton, Roberts, Shelden, Kendricken; quarter-back, Beals; halves, Stearns (capt.) and Hall; full-back, Batchelder. '91: Goodhue (capt.), Bryden, Choate, Mitchell, Blanchard, McKellops, Willard; quarter-back, Cunningham; half-backs, Germer and Garrison; full-back, Highlands.

In the first inning, Garrison and Mitchell made touch-downs for '91, and one goal was kicked. '90 failed to score, and so Freshman stock was above par.

In the second half, the Sophomores braced, and by hard work scored four touch-downs, with no goals. '91 was able to make one touch-down, and the goal wasn't missed more than a foot, leaving '90 victorious, 16-14. Stearns did by far the best work for '90, and was ably helped by Hamilton, Beals, Kendricken, and Delano. For '91, Germer did some good rushing, and Garrison good kicking,— Mitchell and Willard excelling in the rush-line. Ladd, '88, of the

regular eleven, refereed. Final score: '90, 4 touch-downs; '91, 3 touch-downs, 1 goal,— 16-14.

After the game the Sophomores and Freshmen lined up, and moved upon one another in two solid squares. The Freshmen executed a flanking movement, which took '90 by surprise, and rapidly drove them back. The Sophs soon recovered themselves, and the mass had begun to move in the opposite direction, when they separated, owing to one of the Sophs having fallen down and getting trampled on. He was not severely injured, but the rush was stopped. The Sophs carried off the cane, which had led all the cheering of the Freshmen, but owing to there being no rules regulating the rush, it cannot be said that either side won it.

Tech. vs. Amherst.

TECH. went to Amherst, November 12th, and easily defeated the Amherst eleven in a game of two half hours. Mr. Kelly, of the Harvard Medical, officiated as referee. Amherst was unfortunate in being without the services of several of her regular players. The teams lined up as follows: Tech.: rushers, Willard, Tracy, Cromwell, Mitchell, Ladd, Hamilton, Vorce; quarter-back, Herrick (capt.); half-backs, Germer and Duane; full-back, Garrison. Amherst: rushers, Brewster (capt.), C. S. Houghton, H. Houghton, Smith, Wells, Bartlett, Storrs; quarter, Clark; half-backs, Warrener and Wilcox; back, Cutler. Tech. had the kick-off, and scored two touch-downs in less than five minutes. The Amherst rush-line was powerless against our men, and Tech. scored almost as she chose. Amherst was unable to rush the ball in her possession, and was forced to make two safeties. In fact, they never had the ball past their own twenty-five yard line the first half. When time was called, the score was 36-0. Cromwell was hurt just at the end of the inning, and Roberts took his place. In the second half, Herrick retired in favor of Ellis, while in the Amherst team Jacobs took the place of H. Houghton, who took Warrener's place as half-back. Amherst braced this half, and made

several good rushes, but was unable to come within twenty-five yards of scoring. Tech. worked for the remainder of her points, and did not play quite so well together. The inning ended just after Mitchell kicked a goal from a touch-down. For Amherst, H. Houghton, Smith, Storrs, and Bartlett played the best. Duane, Mitchell, Ladd, Vorce, and Willard did splendidly for Tech., especially the first; his rushes were perfection. Ellis played better than ever before, and Germer showed improvement. Of the eleven touch-downs scored, Duane made 6; Mitchell, 3; Herrick, 1; Germer, 1.

Final score: Technology, 11 touch-downs, 3 goals; Amherst, 2 safeties, — 54-0.

In the Amherst game, Garrison, our full-back, never put his fingers on the ball.

The Sophomore eleven played a game of football with the Cambridge High School eleven, November 9th, on the Union Grounds. The Sophs were defeated 6 to 4.

Germer has braced up and played a fine game lately. The disadvantage of his weight was not apparent in the Trinity game, and his beautiful dodging and running won him much applause.

Now is a fine time for our Athletic Club to distinguish itself by getting up a dinner in honor of our foot-ball eleven. We do not mean that the dinner should be given free to all members of the club, as was done last year, but that the Athletic Club should invite the team, and that the dinner should be a subscription one to all others. Our eleven certainly deserves some slight recognition of its good work this year.

Trinity has defeated Stevens 26 to 0, and Dartmouth beat Amherst 54 to 0. The present standing in the league, with the percentage of each team, figured on the ratio of the number of games won to number of games won and lost, is as follows: Technology, 1,000; Trinity, 666; Dartmouth, 500; Amherst, 250; Stevens Institute, 0.



Train for the tug-of-war, '91!

We've got the championship, boys!!

The CB&A Society met on November 8th.

The tennis courts were closed on the 12th.

Tech. students should attend Lowell Institute lectures.

Walter Ellis, '90, has become a member of Theta Xi.

The Cycle Club has purchased a standard and colors.

Several Seniors have recently joined the Boston Electric Club.

F. P. Gulliver is with the U. S. Geological Survey, at Washington.

The Senior Miners have begun work in the applied mechanics laboratory.

A meeting of the 2G Society was held at The Thorndyke, November 15th.

The Class of '90 will have their annual class dinner at Young's, November 18th.

Ladd was shouldered and successfully carried off the field after the Trinity game.

Amherst defeated Stevens Institute in a championship game, 16 points to 6.

The practice of smoking pipes at foot-ball games settles the "gimme cigarette" fiend.

Dame, '89, has sufficiently recovered from the injury to his foot to attend recitations again.

E. K. Taylor, formerly of '88, was in town last week, having returned from a trip abroad.

A large number of Tech. men, wearing Institute colors, were at the Harvard-Princeton game.

The '90 Architects have been inspecting Quincy, Brookline, and the brick-yards at Cambridge.

Thomas, '87, and Gage, formerly of '88, were present at the Amherst game, and rejoiced with Technology.

The Tennis Association will give cups for the first place in doubles and first and second place in singles.

Mr. Wales, '89, aired some very natty apparel at the '90-'91 game, as preliminary to entering the Hammer and Tongs.

Some enterprising Freshman suspended a '91 banner from a telephone wire on Columbus Avenue on the evening of the 11th.

It is said that a fourth-year Electrical, needing some copper sulphate, requested the instructor to give him some CuCO_4 .

Fukuzawa, '88, was one of the speakers at the recent Unitarian meeting on the occasion of the departure of the Rev. Mr. Knapp, for Japan.

We are pleased to note that several men are interesting themselves in THE TECH's welfare by collecting locals. "Let the good work go on."

The Electricals are rejoicing at the probable adoption of the electric street-cars. They will now have an assured position when they graduate.

The *Amherst Student* says that Barber, of Trinity, is the finest half-back the Amherst men have seen this year. What's the matter with Duane?

Now that "Macaulay" and "Doolittle" are playing on the eleven, why don't "De Walthingham" or "Von Damfino" come in somewhere?

The poet of the barge-full who went up to Amherst, November 12th, kept up his reputation by composing the following:—

T stands for the Tech., on Boylston Street;
E is for the eleven, that can't be beat;
C is for the championship we'll surely get;
H is for Herrick, the best captain yet.

W. E. Mott, '88, won first place in the tennis tournament, and J. C. Smith, '88, second. Mott and Beals have postponed their match for the championship until the spring.

The Society of Arts met, November 10th, at the Institute. Mr. U. Cummings read a paper on Hydraulic Cements, Natural and Artificial, and their Comparative Values.

One of '90's carpenters has hard work to tell by the looks of a piece of wood whether he had planed it or not. So now, after planing a piece he carefully marks it "Plained."

A large number have applied to take the Lowell course in assaying. Only a portion can be admitted, but as it is, there will be from twenty to twenty-five in the class.

The Faculty has recently sent out circulars to the Tech. graduates asking them to write and inform the Secretary if, in their opinion, they were overworked while at the Institute.

The fourth-year Civils are kicking about the work given them. They have strong and unreasonable (?) objections to attending lectures between five and six o'clock in the afternoon.

The Senior Biologicals are taking a course in the History of Biology, in the Lowell lectures, with Professor Sedgwick. Taking this subject now gives them an extra free hour next term.

Cromwell was quite seriously injured in the Amherst game last Saturday, his left leg being wrenched. He is now at the Massachusetts General Hospital. He is in the next room to Holden, of Harvard.

The Senior Mechanicals and Civils were invited by the Fitchburgh Railroad Company to be present at the recent series of tests made on the Westinghouse Air Brake, and availed themselves of the opportunity.

'91 has adopted the following slogan: "Ninety-one, ninety-one! 'rah Technology, ninety-one!" It is generally considered to be the best of the class cheers, and was very well given at the Sophomore-Freshman game.

Giles Taintor, '87, who is with the Electrical Accumulator Co., in New York, recently had

an article in the *Scientific American Supplement* on the "President's Car," dealing especially with its method of electrical illumination.

All Tech. men who are desirous of forming a Banjo Club, will further that end by communicating with A. S. Warren, '88, or G. C. Kaufman, '89. If sufficient interest is shown, a meeting will be called shortly and plans discussed.

The Senior Miners had a nine-hour blast-furnace run for copper, on November 10th. At recent memoir meetings, Mr. Warren read a paper on the "Mining Law of the Ancients," and Mr. Hastings one on the "Tin Mines of Cornwall."

It is expected that the second number of the *Quarterly* will be out in the first part of December. "Technique" will make its appearance shortly after. It is expected that this year's "Technique" will eclipse '87's and '88's in the number of its cuts.

The body of a young man was lately found floating on the Charles River, the only clew to his identity being a copy of Fancy's Desc. G—m—try found in his overcoat pocket. The coroner gave a verdict of justifiable suicide. Yours truly, Sniggins, '90.

The Architectural Society is about to publish a monthly paper of a scientific order. There will be four full-page cuts in each number, besides several pages of explanatory reading matter. The size of the publication will be the same as that of the *American Architect*.

The class colors as now fixed upon, and which will now continue from year to year, by the rotation plan, are: '88, red and black; '89, orange and black; '90, blue and gray; '91, gold and blue. Each year the Senior Class will give over its colors to the incoming Freshman Class.

Recent mentions in the Architectural department have been awarded as follows: Design for a casino,—1st mentions, W. Proctor and G. C. Shattuck; 2d mention, H. F. Bigelow. Fourth-year sketch problem: Flower-stand,—1st mention, H. F. Bigelow; 2d mentions, J. E. Fuller, H. D. Bates, G. C. Shattuck.

F. L. Dame, '89, recently met with a severe injury to his foot in a practice game on the Union Grounds, the other afternoon. A tendon and bone in his foot were broken. He will be unable to play again this fall, and it is feared it will be a considerable time before his foot is well enough to walk on. He is one of the best men on the Tech. team, which meets with a great loss in him.

At a meeting of the Class of '88, November 12th, Messrs. Horn, Claflin, and Ferguson were elected a committee on Class Photographs. A motion to petition the Faculty to lengthen the Christmas vacation, at the expense of the Thanksgiving vacation and the one after the semi-annuals, was lost. It was then decided to appoint a committee to canvass the Class on this subject. Messrs. Keough, Holman, and Bigelow were appointed for this duty.

College Notes.

Cornell is to have a coöperative store.

A Semitic Club has been organized at Yale.

Amherst, '91, has a Banjo Club of fourteen pieces.

There are graduates of forty different colleges in the Columbia Law School.

The Freshman Class at Cambridge University, England, numbers 837 men.

The University of California cheer is: "Ha! ha! ha! California! Boom Tiroda!"—*Ex.*

Compulsory attendance at college exercises has been abolished at Cornell.

The salaries of the professors, officers, and employees at Michigan University, amount to \$148,000 a year.

In practice, the other day, Ames, full-back on the Princeton eleven, drop-kicked two goals from the fifty-five yard line.

A Yale Sophomore has already been at seventeen different boarding-places during his college course.

The University of Pennsylvania is better known in Vienna than any other American institution of learning.—*Pennsylvanian*.

Of thirty-two candidates recently examined for admission to West Point, only nine were judged to be physically sound.

Dartmouth has purchased land on which she proposes to erect a building for the exclusive use of her base-ball nine.—*Ex.*

The 128 State scholarships at Cornell are all filled—something that never has happened before.

Harvard men are not allowed to enter for athletic games, there, until they have passed a physical examination by Dr. Sargent.—*Ex.*

It is stated on good authority that the Freshmen of Harvard expend \$14,000 on lacrosse, \$11,000 on foot-ball, \$9,000 on base-ball, and \$4,000 on boat crew.—*Ex.*

There will be a foot-ball game at Chicago, Thanksgiving morning, between teams composed of former Yale, Harvard, and Princeton players.

The corporation of Yale University have selected the College and Chapel Street corner of the campus as a site for the new recitation-hall, and consequently Yale's famous fence will have to go.

A new fellowship has been established at Harvard by Hon. Robert Treat Paine, called the "Social Science Fellowship," yielding \$500 to a graduate of any department of the University.

The six Seniors who received the highest honors at Yale, last year, were all athletic men. One was on the nine, another on the eleven, two rowed on the crew, and two were sprinters.—*Ex.*

Dr. McGlynn states it as his opinion, in the *New York Sun*, that since Cornell is the typical American college, it will, in time, become the leader and head of the colleges of the United States.—*Ex.* And now Cornell gracefully acknowledges the compliment by forming a "Henry George Club."



THE "SPONGE."

I happened with a friend to take a walk;
And as we were engaged in careless talk,
A college-mate, with whom we chanced to meet,
Accosted us and said, in accents sweet:

"Have either one of you a cigarette?
I've asked a dozen, and not even yet
Found one. I'm hard up for a smoke;
My credit's gone, and I'm completely broke."

We smiled at this, and granted his request;
For he was one who always was distressed
For fear he could not borrow what he would not buy.
'Twas only one of those who ever try
To live as lives the mistletoe,
And by the aid of others seek to grow.

—*Amherst Student.*

HAVE YOU MET HER?

(*A Summer's Day Dream.*)

We had sat for a long time in silence,
And I, on the sand at her feet,
Was watching her blue eyes, while musing,
She gazed at the billowy deep.

"Of what," said I, "Grace, are you thinking?
I'd part with a sixpence to know:
I'm sure it is something delightful;
For—how can it help but be so?
She turned as she answered me, smiling,
(Her mouth is hardly *petite*),
"Oh, bother! I'm thinking of dinner,
And what kind of pie I shall eat."

P. S.—*At Dinner.*

They had apple—(its crust hard)—and custard,
And succulent huckleberree;
And she sighed as she fluttered her *menu*,
Blushed faintly, and called for all three!

—*Harvard Advocate.*

GET ONTO THE CHIQUE OF THE FRESHMAN ERIQUE.

A Freshman with head very wique
Smoked a pipe full of ancient perique;
He grew pale as a ghost,
Leaned against a lamp-post,
And collapsed with a horrible shrique.

—*Lampoon.*



She: UGH! HOW THE WIND BLOWS.

He: YES, IT'S SO COLD IT MAKES ME SHAKE.

She: DOES IT? THEN YOU ARE NOT LIKE SOME OF THE YOUNG MEN I KNOW.

He: WHY?

She: I FIND THEY ARE PRETTY HARD TO "SHAKE."

"Give me a kiss, my darling, do,"
He said as he gazed in her eyes so blue.

"I won't," she said; "you lazy elf,
Screw up your lips and help yourself."

—*Dartmouth*.

A MEMORY.

Prone at her feet in bliss he lies,
His cares forgot beneath her eyes;
Spread on her knee, of crimson bright
A silken flag, with strands of white,
With fingers deft she decorates,—
One side to Harvard dedicates,
To "go," one.

And now from her and class estranged,
He wonders if it might be changed
To "91."

—*Harvard Advocate*.

"Two knots an hour isn't such bad time for a clergyman," smilingly said the minister to himself, just after he had united the second couple.

DECEIVED.

Asleep upon the bank she lay,
Purled at her feet the crystal stream;
Faint in the west, the sun's last ray,—
A farewell kiss of parting day.
Perchance of love, this maiden's dream.

A moment to the brook I list,
While gazing on her winsome face.
'Tis not enough; I do insist,
Such lips were moulded to be kissed:
I kissed them, and went on apace.

Alas! she is a sly coquette.
To-day, I heard her counting o'er
How she had caught me in her net
By simply feigning sleep, and yet—
I wish she'd feign asleep once more.

—*Colby Echo*.

A dude gazed intently at a giraffe for a few minutes, and turning sadly away, sighed: "Oh, if I had a neck like that, what a collar I could wear!"—*Ex.*